

Exhibit P-40, BUDGET ITEM JUSTIFICATION						DATE: February 2004					
APPROPRIATION/BUDGET ACTIVITY Aircraft Procurement, Navy/APN-5 Aircraft Modifications						P-1 ITEM NOMENCLATURE EA-6 Series Modifications					
Program Element for Code B Items:						Other Related Program Elements					
	Prior Years	ID Code	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total
QTY		A									
COST (In Millions)	1912.8	A	314.2	334.8	165.7	102.9	38.7	20.1	19.2	147.9	3056.3
<p>This line item funds modifications to the EA-6 aircraft. The EA-6B Prowler is a four-seat derivative of the A-6 Intruder medium attack aircraft. Among its features are a computer controlled electronic surveillance and control system and high power jamming transmitters in various frequency bands that are contained in pods mounted externally on the five aircraft pylons. The overall goal of the modifications budgeted in FY 2005 is the procurement of Wing Center Sections (WCS), Low Band Transmitters, Block 89A upgrades, ASN-130A Replacement, J52 Reliability Improvements, Multifunctional Information Distribution System (LINK-16) and ICAP III upgrades.</p>											
(TOA, \$ in Millions)											
<u>OSIP No.</u>	<u>Description</u>	<u>Prior Years</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>To Complete</u>	<u>Total</u>
19-79	ALQ-99 PODS	746.845	18.895	11.801	11.376	11.461	15.238	15.857	19.105	147.917	998.495
32-85	EA-6B Structural Improvements	608.912	150.158	209.188	68.261	27.482	16.343	4.249	0.144		1084.737
	DERF Non-add	4.250									
111-87	J-52 Engines	31.638	6.402	4.645	0.345						43.030
	DERF Non-add	6.524									
42-93	EA-6B Block 89A Avionics	494.691	17.910	11.125							523.726
01-01	ICAP III	30.773	113.091	88.800	74.269	56.162	5.800				368.895
05-03	MIDS		7.719	9.219	11.452	7.749	1.313				37.452
Total		1912.833	314.175	334.778	165.702	102.854	38.694	20.106	19.249	147.917	3056.308
Totals may not add due to rounding											
FY 2002 Defense Emergency Response Funding (DERF) received augments OSIPs 32-85 and 111-87.											

Exhibit P-3a	Individual Modification
MODIFICATION TITLE: ALQ-99 PODS	
MODELS OF SYSTEMS AFFECTED:	TYPE MODIFICATION: <u>Reliability/Mission Capability</u>
DESCRIPTION/JUSTIFICATION:	
<u>UNIVERSAL EXCITER UPGRADE</u> The Universal Exciter Upgrade (UEU) provides a 30% improvement in reliability over that of the current Universal Exciter (UE / MTRF = 100 hrs). Increased maintainability, elimination of multiple configurations and performance improvements are additional improvements. ORD #474-88-97 defines the UEU requirements. The UEU entered Engineering and Manufacturing Development in 1991 and achieved Milestone III approval for full rate production in Apr 96. A contract for 119 UEUs was awarded in Sep 96. Follow-on procurements are in-process/planned for fiscal years 98-01, which will bring total UEU procurements up to 480. Pursuant to that inventory objective, an FY99 Congressional (Kosovo Supplemental) add of \$39M was received in Sep 99. The modification of UEs to UEUs is accomplished via "turn key" sole source contract. Initial UEU deliveries occurred in Jul 98, which allowed for an Initial Operational Capability in Apr 99. With the planned follow-on procurements, deliveries continued through 2003. GFE and consumables are required to support these deliveries. ALQ-99 Exciters are Weapons Replaceable Assemblies that are readily removed and installed in the ALQ-99 Pod, thus no installation effort/funding is associated with this program. This capability will be available for all the 120 aircraft, which includes four Naval Air Reserve aircraft. This requirement does not apply to the National Guard.	
<u>LOW BAND TRANSMITTER</u> The Low Band Transmitter (LBT) will provide the EA-6B with an expanded jamming capability against the Early Warning/Acquisition Radars and Communication Links of modern Integrated Air Defense Systems. Reliability and maintainability will also be greatly improved over that of current ALQ-99 Transmitters. Following a competitive acquisition and Milestone II approval, Engineering and Manufacturing Development was initiated in Sep 96. Critical Design Review was conditionally approved in Dec 97; however, a follow-up review to close out action items was completed in Nov 98. Testing to date has consisted of prototype testing conducted at government and contractor facilities. This testing has successfully demonstrated the key performance parameters identified in OPNAV/N88 later Ser No. N880C3/6S663399 of 26 JUL 96 can be attained by the present design. Fabrication of Engineering Development Models (EDMs) began in FY00. EDMs will be used for contractor and Navy testing required to support LRIP and Milestone III approval. The LBT inventory objective is 208. ALQ-99 Transmitters are Weapons Replaceable Assemblies that are readily removed and installed in the ALQ-99 Pod, thus no installation effort/funding is associated with this program. Aircraft Operational Flight Program changes are required to support aircraft integration of this transmitter. This capability will be available for all 120 aircraft, which includes four Naval Air Reserve aircraft. This requirement does not apply to the National Guard. In FY04 total program increases \$3.5M as a result of Congressional Plus-up for ALQ-99 Low Band Transmitters.	
<u>PAO TRANSMITTER COOLANT MODIFICATION</u> EA-6B/ALQ-99 Transmitters and support equipment currently use Coolanol for the dielectric coolant required to dissipate heat from and prevent arcing of high voltage power supplies. Coolanol costs over \$300/gallon, is a known carcinogen and must be handled as a hazardous material. Given that the EA-6B is the sole remaining user of Coolanol 35, it's future availability is in doubt. The replacement coolant for Coolanol is Polyalphaolefin (PAO), which costs less than \$25/gallon and is non-hazardous. PAO is widely used by other U.S. military platforms and systems. Additionally, the equipment has to be converted in order to be compatible with the Consolidated Automated Support System (CASS) High Power Device Test Set (HPDTS) modification. HPDTS will allow CASS to test ALQ-99 Transmitters, thereby eliminating the requirements for the EA-6B peculiar Transmitter Test Station (TTS). This transition from the TTS to the CASS is expected to begin in Dec 00. The cooling system of the HPDTS only supports PAO, thus all units tested with it must use PAO as their coolant. ALQ-99 Transmitters require modification in order to utilize PAO, because the polymer-based material currently used as high voltage lead insulation and wire harness identification markers dissolve when exposed to PAO. This material must be replaced with an improved material that through testing has been identified to be impervious to PAO. ECP AV-97-038 delineates the efforts required to modify Transmitters to a PAO compatible configuration. 1296 Transmitters and 1400 high voltage power supply modules will be converted by a government/contractor field modification team. This requirement does not apply to the National Guard. In FY03, total program increases \$2M as result of Congressional Plus-up for Band-4 TWT improvement.	
<u>SUPPORT EQUIPMENT</u> Introduction of new/modified ALQ-99 pod equipment requires new/modified organizational, intermediate and depot level support equipment, such as modifications to the pod test set to support Low Band Transmitter and Band 7/8 Transmitter, modifications to High Power Device Test Set (HPDTS) to extend frequency coverage to test Band 9/10 transmitters, new Test Program Sets to test Low Band Transmitter and Band 9/10 Transmitters and modified Intermediate/depot level support equipment to test Band 7/8 Transmitters.	
<u>ENGINEERING CHANGES</u> This ALQ-99 PODS Operational and Safety Improvement Program covers ALQ-99 Pod modifications required to improve reliability/maintainability/availability, enhance mission capability, resolve obsolescence issues, and correct deviancies found in testing or in the field	
<u>BAND 9/10 TRANSMITTER:</u> The Band 9/10 Transmitter (Band 9/10) provides the EA-6B an expanded jamming capability against target tracking/fire control radars of modern Integrated Air Defense Systems. Reliability and maintainability are also greatly improved over that of current ALQ-99 Transmitters. Following a competitive acquisition, Engineering and Manufacturing Development of the Band 9/10 was initiated in Jan 92. Production began in FY98, with Initial Operational Capability being accomplished in Nov 99. A total of 204 Band 9/10 Transmitters were procured between FY98 and FY00 with the last transmitter planned to deliver in Nov 02. The Band 9/10 inventory objective is 263. ALQ-99 Transmitters are Weapons Replaceable Assemblies that are readily removed and installed in the ALQ-99 Pod, thus no installation effort/funding is associated with this program. This capability will be available for all the 120 EA-6B aircraft, which includes four Naval Air Reserve aircraft. This requirement does not apply to the National Guard. In FY02, total program increases \$13.5M as result of a Congressional Plus-up to procure ten (10) additional Band 9/10 Transmitters. In FY03, total program increases \$14M as result of Congressional Plus-up for 14 additional Band 9/10 Transmitters and support.	
<u>EXTENDED HIGH BAND RADOME:</u> A modified ALQ-99 Extended High Band Radome is required for compatibility with the Band 9/10 Transmitter (Band 9/10). This Radome incorporates unique sections of the radome composite structure to prevent damage by impinging energy radiation from the Band 9/10. Between FY98 and FY01, 250 ALQ-99 radomes were modified to this configuration. Future requirements for these radomes will be met by new production, vice modification, as there are no more existing assets to modify. ALQ-99 Radomes are Weapons Replaceable Assemblies that are readily removed and installed in the ALQ-99 Pod, thus no installation effort/funding is associated with this program. This capability will be available for the total of 120 EA-6B aircraft, which includes four Naval Air Reserve aircraft. This requirement does not apply to the National Guard. In FY02, total program increases \$.5M as result of a Congressional Plus-up to procure ten (10) Band 9/10 Radomes.	

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Delivery of UEU Engineering Design Models (EDMs) began in the first quarter of FY1995 with developmental and operational testing completed in the second quarter of FY1996 achieving approval for full production, milestone III in March 1996 and followed by a production contract award. LBT program is proceeding though remainder of E&MD with LRIP decision expected 3rd quarter of FY2004.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E		14.1		2.0																
PROCUREMENT																				
Installation Kits																				
Installation Kits N/R																				
Installation Equipment	2,575	199.9																		
Universal Exciter Upgrade	480	223.3																		
Lowband Transmitter					9	7.5	13	10.8												
PAO Transmitter Mod	1,296	5.8																		
Band 9/10 Transmitter	221	119.4	14	13.5																
Band 9/10 Radome	260	4.9																		
ALQ-99 Band-4 TWT IM				1.8																
BAND 9/10 GFE		0.3																		
REPAIR OF GFE (UEU)		6.2																		
Installation Equipment N/R		11.2				3.5														
Engineering Change Orders		1.1		0.1		0.1														
Data		9.6		0.1		0.1														
Training Equipment		1.6																		
Support Equipment	6	96.5		0.3		0.2		0.6												
ILS		4.3																		
Other Support		44.0		3.2		0.4														
Interim Contractor Support																				
Installation Cost	1,207	18.9																		
Total Procurement		746.8		18.9		11.8		11.4												

Notes:

1. UEU Repair of GFE costs are included in the UEU Installed Equipment line.
2. Install schedules not provided for GFE that fits into the POD without structural modification, or for equipment not requiring APN-5 funding for installation into the pod/aircraft (e.g.: LBT, UEU).
3. Funding for Repair of GFE was reported in Installation Cost for PB01 and has been redirected to the Install Equipment line under UEU Install Equipment.
4. Total Band 9/10 Transmitters include 5 EDM's.
5. Totals may not add due to rounding.

Exhibit P-3a	Individual Modification
MODIFICATION TITLE:	<u>EA-6B Structural Improvements (OSIP 32-85)</u>
MODELS OF SYSTEMS AFFECTED:	<u>EA-6 Series Modifications</u> <div>TYPE MODIFICATION: <u>Safety of Flight</u></div>
<p>DESCRIPTION/JUSTIFICATION: This Omnibus Operational and Safety Improvement Program covers EA-6B Structural modifications and EA-6B peculiar avionics modifications arising from test/deficiencies and those safety of flight related improvements. Included are Structural Improvement modifications which includes fixes for areas found to be deficient during aircraft fatigue test; Wing Center Sections (WCS) which replace wings that have either cracked due to stress corrosion or have reached their wing fatigue life limit; Structural Data Recording System (SDRS) which will provide a more accurate measurement of Fatigue Life Expenditure (FLE); the Joint Mission Planner which provides for the maintenance of the current EA-6B mission planning system (TEAMS) and its subsequent migration to TAMPSS; Outer Wing Panels(OWP) will replace OWPs that have reached their fatigue life limit. This OSIP also includes the Connectivity and USQ-113 programs. In FY02 received supplemental funds in the amount of \$35M for 10 additional WCS. In FY03, total program increases as a result of Congressional Plus-ups in the amount of \$9M for 3 additional WCS, USQ113 Jammers \$10.5M, On-Board Oxygen Generating System (OBOGS) \$1M, and Ready Room Mission Rehearsal System \$3.1M, and an additional \$60M for OWP . In FY04, total program increases as a result of Congressional Plus-ups in the amount of \$15M for WCS accelleration and \$70M for OWPs in the FY2004 Emergency Supplemental Appropriations Act, \$2M Plus-up for for Ready Rm Mission/ Mission Reprogramming Unit, \$4M Plus-up for USQ113, and \$35M for OWPs via Congressional add.</p> <p>ASN-130A Replacement: Funding for this upgrade was provided via a Cost Reduction Effectiveness Improvement Council (CREIC) initiative during the POM-02 process. The aging ASN-130A will be replaced with the ASN-172, with a combined inertial navigation/GPS system 2nd EGI. Reliability and maintainability will be improved.</p> <p>Outer Wing Panel (OWP) replacement program includes ongoing fatigue life expenditure (FLE) analysis. The solution may range from an airframe change to improve FLE to replace the OWP to ensure the EA-6B availability through FY-2015. In FY02 received supplemental in the amount of \$25M to procure up to 3 additional Outer Wing Panels. Also received \$4.25M DERF funds for OWP production line start up and tooling.</p> <p>Mission Reprogramming Unit (MRU): This program resulted from an Affordable Readiness Initiative (ARI) that provides an upgrade to the existing memory input/output capability of the mission computer. Tape driven devices which are no longer being produced are being replaced with PCMCIA cards that are more reliable and maintainable. Funding for this upgrade resided in OSIP 1-01 during the PB01 process.</p> <p>EA-6B Power PC initiative: This initiative proposes to add a COTS PowerPC processor to the AYK-14, XN-11/CP-2357. This special EA-6B AYK-14 chassis has already been upgraded to support COTS SRAs on its VME backplane. Funding is required for COTS hardware (Processor SRA) and integration kit (Memory Bridge SRA), addition of a few laboratory support tools, development testing, and modification to technical publication source data and maintenance plans.</p> <p>EA-6B (MK-GRU-EA7) Ejection seat initiative: The GRUAE7 ejection seat, used in the EA-6B aircraft uses standard British hardware to build the GRUAE7 ejection seat. This hardware is replaced 100% during depot rework and 224 day "O" level maintenance. The cost of standard British hardware is 4 to 5 times more than the US (NAS/MS) hardware. Replacing the standard British hardware with US(NAS/MS) hardware will drastically reduce the material cost for the GRUAE7 ejection seat.</p> <p>EA-6B Digital Flight Control System (DFCS): The DFCS program comprises the adaption of existing Digital Flight Control Computer (DFCC) and Digital Control Panel (DCP) to replace the existing Air Navigational Computer (ANC) and control panel presently fitted to the EA-6B aircraft. This replacement DFCS will be configured to ensure only the minimum number of aircraft changes are required. Intended to eliminate the problem of spurious inputs to Flight Control Systems.</p>	

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Major milestones include the completion of SDRS and 9th Squadron Support Equipment.

	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RD&EN																				
Procurement																				
Installation Kits	3,101	36.3																		
SDRS Kit	122	1.7																		
ASN-130A Replacement (2nd EG)	44	0.3	28	0.2	21	0.2	28	0.2												
Wing Center Section (WCS)	81	246.4	17	52.3	15	47.8	9	36.0												
Outer Wing Panel (OWP)	1	25.0	19	60.0	34	102.7														
DFCS							24	7.1												
AN/USQ-113	145	3.1	10	8.0	10	5.0														
Mission Rehearsal System (MRS)				0.7																
Wing Center Section Acceleration						2.7														
Installation Kits N/R		20.3																		
DFCS				3.0	2	3.2	1	2.3												
AN/USQ-113				2.5		0.5														
Mission Rehearsal System (MRS)				2.1																
On-Board Oxygen Gene (OBOG)			2	1.0																
Wing Center Section						3.5														
Installation Equipment	1,949	88.5																		
Mission Reprogramming Unit		11.2																		
Ejection Seat				0.3																
Power PC Integration				2.0		0.6		0.5												
ASN-130A Replacement (2ND EGI)		1.4		0.3		2.4		2.4												
DFCS																				
Installation Equipment N/R		17.9																		
Ready Rm Mission Rehearsal						1.5														
DFCS						5.2														
OWP						0.0		0.3												
Engineering Change Orders		1.3		0.5		0.5		0.5												
Data		11.6		0.2		0.7		0.4												
Training Equipment	15	3.0				0.2														
Support Equipment		15.1																		
ILS		1.6		0.2		0.5														
Other Support		51.3		1.7		10.1		2.5												
Interim Contractor Support																				
Installation Cost	854	73.0	59	13.9	52	22.0	41	16.2												
Total Procurement		608.9		150.2		209.2		68.3												

* Totals less than \$50K.

1. Totals may not add due to rounding.

2. ASN-130A Installation Kit quantities (121) do not include VEP aircraft quantity (1) obtained via FY00 Congressional Add.

3. In FY 2002, received \$4.25M Defense Emergency Response Funding (DERF) for OWP, \$25M in supplemental funds for OWP, and \$35M for WCS.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: EA-6B Series Modifications MODIFICATION TITLE: Wing Center Section (OSIP 32-85)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Turn-key for FY97 Procurement. Commercial & Organic installs FY98 and out.

ADMINISTRATIVE LEADTIME: 6 Months PRODUCTION LEADTIME: 28 Months

CONTRACT DATES: FY 2003: Dec-02 FY 2004: Dec-03 FY 2005: Dec-04

DELIVERY DATE: FY 2003: Mar-05 FY 2004: Mar-06 FY 2005: Mar-07

(\$ in Millions)																				
Cost:	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2002 & PY() kits	44	38.6	18	13.3	19	18.8														
FY 2003 () kits					2	1.6	15	15.0												
FY 2004 () kits							1	0.8												
FY 2005 () kits																				
FY 2006 () kits																				
FY 2007 () kits																				
FY 2008 () kits																				
FY 2009 () kits																				
To Complete () kits																				
TOTAL	44	38.6	18	13.3	21	20.4	16	15.7												

1. Totals may not add due to rounding
2. FY03 Includes WCS installed for VEP aircraft making 123 aircraft.

Installation Schedule

	FY 2002 & Prior	FY 2003				FY 2004				FY 2005				FY 2006				FY 2007				FY 2008			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	44	4	4	5	5	4	6	6	5	4	4	4	4												
Out	33	2	1	5	4	4	4	5	5	4	6	6	5												

	FY 2009				FY 2010				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										
Out										

*FY00 installation costs included in FY97 & prior turn-key contracts.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED:EA-6B Series Modifications

MODIFICATION TITLE:SDRS KITS (OSIP 32-85)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION:Contractor Mod Team/Organic

ADMINISTRATIVE LEADTIME:1Months

PRODUCTION LEADTIME:5Months

CONTRACT DATES:

FY 2003:N/A

FY 2004:N/A

FY 2005:N/A

DELIVERY DATE:

FY 2003:N/A

FY 2004:N/A

FY 2005:N/A

(\$ in Millions)

Cost:	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2002 & PY() kits	122	2.0																	122	2.0
FY 2003 () kits																				
FY 2004 () kits																				
FY 2005 () kits																				
FY 2006 () kits																				
FY 2007 () kits																				
FY 2008 () kits																				
FY 2009 () kits																				
To Complete () kits																				
TOTAL	122	2.0																	122	2.0

Installation Schedule

	FY 2002 & Prior	FY 2003				FY 2004				FY 2005				FY 2006				FY 2007			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	122																				
Out	112	10																			

	FY 2008				FY 2009				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										122
Out										122

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED:

EA-6B Series Modification

MODIFICATION TITLE:

ASN-130A Replacement (2nd EGI)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION:

Organic Installations

ADMINISTRATIVE LEADTIME:

1 Month

PRODUCTION LEADTIME:

3 Months

CONTRACT DATES:

FY 2003:

Nov-02

FY 2004:

Nov-03

FY 2005:

Nov-04

DELIVERY DATE:

FY 2003:

Feb-03

FY 2004:

Feb-04

FY 2005:

Feb-05

(\$ in Millions)

Cost:	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2002 & PY() kits	14	0.2	30	0.4																
FY 2003 () kits			11	0.2	17	0.2														
FY 2004 () kits					12	0.2	9	0.2												
FY 2005 () kits							15	0.3												
FY 2006 () kits																				
FY 2007 () kits																				
FY 2008 () kits																				
FY 2009 () kits																				
To Complete () kits																				
TOTAL	14	0.2	41	0.6	29	0.4	24	0.4												

Installation Schedule

	FY 2002 & Prior	FY 2003				FY 2004				FY 2005				FY 2006				FY 2007			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	14	6	12	12	11	6	7	10	6	5	4	8	7								
Out	8	5	10	12	12	5	7	7	7	8	6	6	8								

	FY 2006				FY 2007				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										
Out										

* Indicates cost less than \$50K

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED:EA-6B Series ModificationMODIFICATION TITLE: DFCS

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION:Organic Installations

ADMINISTRATIVE LEADTIME:1 MonthPRODUCTION LEADTIME:1 Months

CONTRACT DATES:FY 2003:FY 2004:FY 2005:Oct-04

DELIVERY DATE:FY 2003:FY 2004:FY 2005:Oct-04

(\$ in Millions)																				
Cost:	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2002 & PY() kits																				
FY 2003 () kits																				
FY 2004 () kits					2	1.2	1	0.1												
FY 2005 () kits																				
FY 2006 () kits																				
FY 2007 () kits																				
FY 2008 () kits																				
FY 2009 () kits																				
To Complete () kits																				
TOTAL					2	1.2	1	0.1												

Installation Schedule

	FY 2002 & Prior	FY 2003				FY 2004				FY 2005				FY 2006				FY 2007			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In								1	1			1									
Out								1		1											

	FY 2006				FY 2007				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										
Out										

* Indicates cost less than \$50K

1. The (DFCS) Program quantity and schedule adjustments were the result of budget constraints. The original program called for 120 aircraft to have the current AFCS replaced with DFCS. However the independent cost estimate completed after the OSD budget determined that this plan exceeded the funding available. The DFCS program has since been de-scoped. 2. Three kits in FY04 are validation and verification kits.

Exhibit P-3a

Individual Modification

MODIFICATION TITLE:

J-52 Engines (OSIP 111-87)

MODELS OF SYSTEMS AFFECTED:

EA-6B Series Modification

TYPE MODIFICATION:

Reliability Upgrade

DESCRIPTION/JUSTIFICATION:

J-52 Engine Improvements: The J-52 engine is a legacy gas turbine engine, which powers the EA-6B and has been in service since the 1960's. This initiative will capitalize on R&D efforts funded through the Engine Component Improvement Program (CIP). Through the CIP, the J-52 Team has identified specific reliability discrepancy trends and has developed appropriate Engineering Change Proposals (ECP) and Power Plant Changes (PPC). To specifically address the risk of uncontained turbine blade failures and design various other engine improvements, CIP projects were undertaken. The results include an improved Turbine Exhaust Case (TEC) that provides low pressure turbine (LPT) containment and other durability improvements. These improvements will be replaced at normal engine overhaul, incurring no additional installation costs. Installations will be performed concurrently with Standard Depot Level Maintenance (SDLM), Engine Overhaul and other O&M,N funded availabilities. Received \$6.524M of DERF funds in FY02.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Development of the Improved Turbine Exhaust Case (TEC) began in FY95 using engine CIP and contractor funds. Testing and ECP approval was completed in the first quarter of FY98 (OCT 97), followed by a production contract award. All ECPs are approved and Technical Directives (TD) are completed or in process. Incorporation of initial PPC 306 TEC kits is in process. Initial PPC 304 kits are on order and NAVICP is currently procuring attrition parts.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																				
PROCUREMENT																				
Installation Kits																				
Turbine Blade Containment Kit	218	25.5	51	5.8	33	4.6	2	0.3												
Installation Kits N/R																				
Installation Equipment																				
Installation Equipment N/R																				
Engineering Change Orders																				
Data		0.2																		
Training Equipment																				
Support Equipment		0.3																		
AXIAM Equipment		2.5																		
ILS		0.2																		
Other Support		3.0		0.6		0.1		0.1												
Installation Cost																				
Total Procurement		31.6		6.4		4.6		0.3												

Notes:

1. Totals may not add due to rounding

2. Funding provided within the FYDP reflects an approved Reduction in Total Ownership Cost (RTOC) initiative.

3. Installations will be performed concurrently with Standard Depot Level Maintenance (SDLM), Engine Overhauls and other O&M,N funded efforts.

4. FY 2002 received \$6.524M Defense Emergency Response Funding (DERF) for J52.

Exhibit P-3a		Individual Modification	
MODIFICATION TITLE:		<u>Block 89A Avionics (OSIP 42-93)</u>	
MODELS OF SYSTEMS AFFECTED:		<u>EA-6 Series Modifications</u>	TYPE MODIFICATION: <u>Safety of Flight/ Reliability</u>
<p>DESCRIPTION/JUSTIFICATION:</p> <p>This omnibus Operational and Safety Improvement Program covers EA-6B ICAP II Block 89A Avionics systems modifications to install required communications, navigation, and miniaturized technology improvements. The avionics common systems upgrade includes incorporation of: (1) AN/ARC-210 VHF/UHF radios having SINCGARS and HAVEQUICK modes for inter-operability with Air Force, ground, and NATO forces. (2) The Embedded GPS Inertial Navigation System (EGI) provides a closely coupled GPS-INS solution and replaces the ASN-50 AHRS which has very poor reliability. (3) Full integration of the Electronic Flight Instrumentation System (EFIS), Control Display Navigation Unit (CDNU), and Digital Signal Data Converter (DSDC), which were installed as part of AFC778-779. This OSIP provides for upgrade of the DSDC for use in Block 89A. The DSDC functions as an interface unit for the EFIS and is connected to the 1553 Navigation data bus to provide additional navigation data to the aircrew. (4) The AYK-14 computer will be upgraded with Very High Speed Integrated Circuit Technology (VHSIC) improving processing, memory, and throughput. The upgraded computer (CP-2357) will retain the outer form factor of the current computer and incorporate a new backplane that supports the new VHSIC processor Module and provides VME-bus expansion slots. Discrete and Serial Modules (DSM) replace the Serial Interface Module-A (SIM-A) cards. (5) Mission Planning System: The AN/TSQ-142 Mission Planner provides operational flight program loading, maps, EW libraries, jammer techniques, HARM data, and performs data reduction. Modifications to the AN/TSQ-142 are required to support the Block-89A upgrade, and to support transition of EA-6B MPS. (6) Misc. Avionics: Additional Engineering Change Proposals (ECP) and procurement of avionics, such as ARC-199 Radios, CIU/E, HARM, Dual EGI, and Night Vision capability in all aircraft. * Funding for the Night Vision Device upgrade was provided via an FY00 Congressional add and is comprised of the goggles themselves, engineering and integrations effort, display and lighting modifications, and various electrical/structural changes.</p>			

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

The ARC-210 UHF/VHF radio is a common avionics system to be installed in all Navy aircraft, and has undergone OPEVAL on the F-18, UH-1, and other platforms. The EA-6B has been approved for installation. The EFIS system completed successful OPEVAL and was approved for full rate production and will require minimal upgrade FOT&E for the required interface and incorporation of EGI data. The EGI is common avionics with the F-18 EGI and has been extensively flight tested in that platform. The AYK-14 (XN-*) computer utilizes modules that are common avionics to Navy inventory, and a chassis similar to the current XN-4. The similarity and commonality of the upgraded AYK-14 required little additional qualification testing. DT began on the Block -89A system in FY-98, with an intensive integrated Test and Evaluation period. Testing of software, upgraded avionics, including some regression testing of existing functionality, and testing of the mission planning system are currently being conducted.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
PROCUREMENT																				
Installation Kits	20	59.5																		
Block 82 to 89A Kit	47	43.6																		
Block 89 to 89A Kit	45	13.9																		
Installation Kits N/R	8	61.4																		
Installation Equipment	101	5.8																		
Block 82 to 89A Equip	6	14.8																		
Block 89 to 89A	30	2.0																		
ARC-210 Equip	50	4.2																		
AN/AYK-14	45	7.3																		
NVD Equip	122	12.3																		
CIU/Encoder	66	18.6																		
Installation Equipment N/R	2	8.2																		
Engineering Change Orders		0.5		0.2																
Data		12.2																		
Training Equipment		13.4																		
Support Equipment		43.2																		
ILS		9.0																		
Other Support		88.3		2.2		0.1														
Interim Contractor Support																				
Installation Cost	176	76.4	27	15.5	11	11.0														
Total Procurement		494.7		17.9		11.1														

Notes:

1. EGI and ARC-210 Equipment quantities are funded under the Common Avionics budget.
2. In FY00, total program includes \$31.0M as a result of a Congressional plus-up for Night Vision Devices (NVD).
3. NVD funding reported in PB01 under Installation Kits and Installation Equipment was redirected to Installation Equipment and represents multiple NVD goggles per Install Kit.
4. * Totals less than 50k.
5. Totals may not add due to rounding.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED:EA-6B Series Block 89A ModificationsMODIFICATION TITLE: Block 89A Avionics System Improvement (OSIP 42-93)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION:Commercial and Organic Installations

ADMINISTRATIVE LEADTIME:6 MonthsPRODUCTION LEADTIME:12 Months

CONTRACT DATES:FY 2003:N/AFY 2004:N/AFY 2005:N/A

DELIVERY DATE:FY 2003:N/AFY 2004:N/AFY 2005:N/A

(\$ in Millions)																			
Cost:	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
FY 2002 & PY() kits	73	74.5	14	18.1	5	10.8													
FY 2003 () kits																			
FY 2004 () kits																			
FY 2005 () kits																			
FY 2006 () kits																			
FY 2007 () kits																			
FY 2008 () kits																			
FY 2009 () kits																			
To Complete () kits																			
TOTAL	73	74.5	14	18.1	5	10.8													

Installation Schedule

	FY 2002 & Prior	FY 2003				FY 2004				FY 2005				FY 2006				FY 2007			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	73	4	4	3	3	2	2	1													
Out	61	6	6	4	4	3	3	2	2	1											

	FY 2008				FY 2009				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										
Out										

1. A/C inducted four months ahead of delivery, as this is done concurrent with SDLM, and tear down and partial SDLM must be completed before kit installation.

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED:EA-6B Series ModificationsMODIFICATION TITLE: Night Vision Devices

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION:Organic

ADMINISTRATIVE LEADTIME:PRODUCTION LEADTIME:6 Months

CONTRACT DATES:FY 2003:N/AFY 2004:N/AFY 2005:N/A

DELIVERY DATE:FY 2003:N/AFY 2004:N/AFY 2005:N/A

(\$ in Millions)																				
Cost:	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2002 & PY() kits	103	1.7	13	0.4	6	0.2														
FY 2003 () kits																				
FY 2004 () kits																				
FY 2005 () kits																				
FY 2006 () kits																				
FY 2007 () kits																				
FY 2008 () kits																				
FY 2009 () kits																				
To Complete () kits																				
TOTAL	103	1.7	13	0.4	6	0.2														

Installation Schedule

	FY 2002 & Prior	FY 2003				FY 2004				FY 2005				FY 2006				FY 2007			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In	103	3	3	3	4	6															
Out	32	26	26	19	3	3	3	4	6												

	FY 2008				FY 2009				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										
Out										

1. NVD installation costs are not budgeted on an annualized basis as the cost to procure and install kits were provided as part of an FY00 Congressional plus-up.

Exhibit P-3a

Individual Modification

MODIFICATION TITLE: **ICAP III (OSIP 01-01)**MODELS OF SYSTEMS AFFECTED: **EA-6 Series Modifications**TYPE MODIFICATION: **Safety of Flight/ Reliability**

DESCRIPTION/JUSTIFICATION:

This Operational and Safety Improvement Program covers the EA-6B Improved Capabilities III (ICAP III) systems modifications to install required radar and communications receiver, displays, and connectivity improvements. Additionally, this modification removes over 70 aging and unreliable Weapons Replaceable Assemblies (WRAs). Specifically, the modification program replaces the ALQ-99 receiver System with the LR-700 receiver system, replaces the TDY-43 display system with a new COTS based display system for the Pilot and three Electronic Countermeasures Officers (ECMOs), replaces the Recorder Reproducer Set (RRS) with a new Digital Recorder, incorporates the Multi-Mission Advanced Tactical Terminal (MATT) which provides reception of datalinks such as TIBS, incorporates the USQ-113 Communication Receiver/Jammer with the Onboard System, updates mission planning for ICAP III, and provides provisions for Link-16.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Following a Full and Open Competition, Milestone II approval was received, and an EMD RDT&E development contract was awarded to the Northrop Grumman Corporation in March 1998. Following a DT/OT test period, completion of an OA and an LRIP decision, an LRIP contract will be awarded in FY03. Following completion of OPEVAL and a Milestone III decision, a full rate production contract will be awarded in FY04.

FINANCIAL PLAN: (TOA, \$ in Millions)

	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E		273.3		38.8		22.8		23.7												
PROCUREMENT																				
Installation Kits																				
ICAPIII			10	69.4	11	60.7	10	53.2												
Installation Kits N/R				0.1																
Installation Equipment																				
Installation Equipment N/R						0.5		1.0												
Engineering Change Orders																				
Data				1.2		1.5		0.5												
Training Equipment	2	29.9		35.9		2.3														
Support Equipment		0.4		3.7		4.7		2.4												
ILS						1.5		1.5												
Other Support		0.5		2.8		2.9		1.1												
Interim Contractor Support																				
Installation Cost					10	14.6	11	14.5												
Total Procurement	2	30.8		113.1		88.8		74.3												

Notes:

1. In FY00, total program increases \$29.9M as result of a Congressional Plus-up for Simulators for a trainer upgrade.
2. Installation costs include Repair Incident to Modification (RIM) efforts in FY06 and out.
3. Totals may not add due to rounding.
4. Total quantity of 35 does not include 2 kits procured/installed via E&MD program

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED:EA-6B Series ICAP III UpgradeMODIFICATION TITLE: ICAP III System Improvement (OSIP 1-01)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION:Commercial

ADMINISTRATIVE LEADTIME:5 MonthsPRODUCTION LEADTIME:* 12 Months

CONTRACT DATES:FY 2003:Jun-03FY 2004:Jun-04FY 2005:Jan-05

DELIVERY DATE:FY 2003:Jun-04FY 2004:Jun-05FY 2005:Jan-06

(\$ in Millions)																			
Cost:	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty
FY 2002& Prior () kits																			
FY 2003 () kits					10	14.6													
FY 2004 () kits							11	14.5											
FY 2005 () kits																			
FY 2006 () kits																			
FY 2007 () kits																			
FY 2008 () kits																			
FY 2009 () kits																			
To Complete (0) kits																			
TOTAL					10	14.6	11	14.5											

* Aircraft are inducted concurrent with other Depot work to maximize Primary Aircraft Inventory (PAI) levels and is not impacted despite delay in initial ICAP III kit deliveries.

** ICAP III Kit is delivered in three parts. Part 1 of the kit delivery is delivered 12 months after ARO. Also production rate for ICAP III kit was increased to maintain IOC schedule requirements.

*** MIDS and ICAP III are interconnected programs but have their own OSIPS. However, procurement quantities and install quantities will match because the goal is to have both MIDS and ICAP III work as part of a system. As a result, the installs will be done at the same time to ensure that the two are placed on a common aircraft.

	FY 2002 & Prior	FY 2003				FY 2004				FY 2005				FY 2006				FY 2007			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In								4	6			5	6								
Out										1	3	3	3								

	FY 2008				FY 2009				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										
Out										

Note: Two (2) aircraft kits were developed and installed in EA-6B EMD RDT&E program. Total Inventory of 37 (35 of which is in production).

Exhibit P-3a		Individual Modification																			
MODIFICATION TITLE:		MIDS (LINK 16) (OSIP 05-03)																			
MODELS OF SYSTEMS AFFECTED:		EA-6 Series Modifications									TYPE MODIFICATION:									Safety of Flight/ Reliability	
DESCRIPTION/JUSTIFICATION:																					
This Operational and Safety Improvement Program covers integration of required flight systems and Link-16 into the EA-6B. These programs cover procurement and installation of (a) Government Off the Shelf (GOTS) Inter-cockpit Communications System (ICS), CXP (IFF), TACAN Modification, and modification of the of Pre-Planned Product Improvement (P3I) Ethernet processor into the already installed AN/AYK-14 XN-11 and (b) previously developed and approved for production MIDS Low Volume Terminal. These modifications will allow the EA-6B aircraft to fly with new FAA mandated requirements and to participate in the Link-16 network. Items within (a) above are required prerequisites for (b) installs. Training Systems, Publications, and Support Equipment will be procured.																					
DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:																					
The MIDS LVT is a common DoD system. The Navy will procure an existing ICS system based on requirements and via a competitive contract. The AYK-14 XN-11 Ethernet modification is currently in development.																					
FINANCIAL PLAN: (TOA, \$ in Millions)																					
	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
RDT&E		28.7				1.8		2.4													
PROCUREMENT																					
Installation Kits																					
MIDS A KITS			14	0.4	11	0.3	10	0.3													
MIDS B KITS			14	4.9	11	3.1	10	2.9													
Installation Kits N/R																					
Installation Equipment			14	1.9	11	1.8	10	1.7													
Installation equipment N/R																					
Engineering Change Orders																					
Data				0.1		0.1		0.5													
Training Equipment				*		0.5		0.4													
Support Equipment				*		0.1		0.1													
ILS						0.2		0.3													
Other Support				0.3		1.9		3.9													
Interim Contractor Support																					
Installation Cost					10	1.3	11	1.3													
Total Procurement				7.7		9.2		11.5													
Notes:																					
1. Totals may not add due to rounding																					
2. * Totals less than 50K.																					
3. Total of 39 Kits include 4 which are used for labs and trainers and will not be operational aircraft.																					
4. A kits = provisions including cables, brackets, and interface devices. B kits = Link 16 black box.																					

Exhibit P-3a

MODELS OF SYSTEMS AFFECTED: EA-6B SeriesMODIFICATION TITLE: MIDS (Provisions and Link 16) (OSIP 05-03)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: FIELD DEPOT INSTALLADMINISTRATIVE LEADTIME: 3 Months PRODUCTION LEADTIME: 12 MonthsCONTRACT DATES: FY 2003: Dec-03 FY 2004: Dec-04 FY 2005: Dec-05DELIVERY DATE: FY 2003: Dec-04 FY 2004: Dec-05 FY 2005: Dec-06

(\$ in Millions)

Cost:	Prior Years		FY 2003		FY 2004		FY 2005		FY 2006		FY 2007		FY 2008		FY 2009		To Complete		TOTAL	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
FY 2002 & PY() kits																				
FY 2003 () kits					10	1.3														
FY 2004 () kits							11	1.3												
FY 2005 () kits																				
FY 2006 () kits																				
FY 2007 () kits																				
FY 2008 () kits																				
FY 2009 () kits																				
TO COMPLETE () KITS																				
TOTAL	0	0.0	0	0.0	10	1.3	11	1.3												

** Aircraft are inducted one month before kit delivery

NOTES

*** MIDS and ICAP III are interconnected programs but have their own OSIPS. However, procurement quantities and install quantities will match because the goal is to have both MIDS and ICAP III work as part of a system. As a result, the ins As a result the installs will be done at the same time to ensure that the two are placed on a common aircraft.

	FY 2002 & Prior	FY 2003				FY 2004				FY 2005				FY 2006				FY 2007			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
In								4	6			5	6								
Out										1	3	3	3								

	FY 2008				FY 2009				To Complete	TOTAL
	1	2	3	4	1	2	3	4		
In										
Out										